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10/525,661	02/25/2005	David Keith Roberts	NL 020816	7990

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EXAMINER	
SANDERS, STEPHEN	

ART UNIT	PAPER NUMBER
4133	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/525,661	ROBERTS, DAVID KEITH	
	Examiner	Art Unit	
	STEPHEN SANDERS	4133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *25 Feb. 2005.*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 Feb. 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *Feb. 25, 2005; Mar. 03, 2006.*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This is in response to Application/Control Number: 10/525661 filed on February 25, 2005 in which claims 1-16 are presented for examination.

Status of Claims:

Claims 1-16 are pending, of which claims 1, 7, 12-14, and 16 are in independent form. Claims 15 and 16 are rejected under 35 U.S.C. 101. Claims 1-14, and 16 are rejected under 35 U.S.C. 102(b). Additionally, claim 15 is rejected under 35 U.S.C. 103(a).

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "four signal values …" in Figure 1 as described in paragraph [0022] of the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top

margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 2-6 recite the limitation "A method…" in referring to independent claim 1, in their first lines. The “method” recited in claim 1 is the antecedent basis for the “methods” of claims 2-6, therefore, claims 2-6 should begin with “The method…”. Appropriate correction is required.

3. Claims 8-11 recite the limitation “A method…” in referring to independent claim 7, in their first lines. The “method” recited in claim 7 is the antecedent basis for the “method” of claims 8-11, therefore, claims 8-11 should begin with “The method…”. Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 15 and 16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As to claim 15, it is directed toward a computer program, which is a computer software program. Such computer software program is not a process, a machine, a manufacture, or a composition of matter. Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functionality interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. Since claim 15 is not directed to one of the four statutory categories of inventions that Congress deemed to be appropriate subject matter of a patent, they are rejected under U.S.C. 101.

As to claim 16, it is directed toward a media transmission signal. Such media transmission signal is not a process, a machine, a manufacture, or a composition of matter, and as such it is not directed to one of the four statutory categories of inventions that Congress deemed to be appropriate subject matter of a patent, it is rejected under 35 U.S.C.101.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Mabey by U.S. Patent Number 4,885,632; Date of Patent: Dec. 5, 1989; Filing Date: Mar. 16, 1988; hereinafter Mabey.

As to claim 1, the following is taught: "A method of embedding a fingerprint (FP) identifying media content into a media transmission signal used for transmission of said media content, the method comprising the steps of:"

"converting (23) said fingerprint into a format that the media transmission signal provides for transmission of said media content, and (Abstract discloses the generating of timing signals necessary to record and detect fingerprints into the transmission stream; also see column 3, line 63 to column 4, line 2; and column 8, lines 1-22);"

"accommodating (24) the converted fingerprint in a predetermined part of the media transmission signal not being used for transmission of said media content (Abstract discloses placing the fingerprint in a predetermined part of the media transmission signal, e.g., the vertical blanking interval of a TV signal; also see column 3, line 63 to column 4, line2; and column 8, lines 1-22)."

As to claim 2, the following is taught: "A method as claimed in claim 1, further comprising the steps of:"

"dividing said media content (40) into a first part (42) and a second part (41), (The Abstract and the following reference locations disclose the two parts of the media content – the image display area, and the vertical blanking area of the TV signal, which is the non-viewable part of a TV signal that is sent between each video frame; see reference locations: column 3, line 63 to column 4, line2; and column 8, lines 1-22),"

"deriving said fingerprint (FP) from the first part (42) of said media content, and (The Abstract and the following reference locations disclose deriving the fingerprint to be inserted into one of the two parts of the media content; see reference locations: column 3, line 63 to column 4, line2; and column 8, lines 1-22),"

"replacing the second part (41) of said media content (40) by said converted fingerprint (The Abstract and the following reference locations disclose the insertion of the fingerprint into the vertical blanking area of the TV signal, which is the non-viewable part of a TV signal that is sent between each video frame; see reference locations: column 3, line 63 to column 4, line2; and column 8, lines 1-22)."

As to claim 3, the following is taught: "A method as claimed in claim 1, further comprising the step of encrypting (22) the fingerprint (column 5, line 56 to column 6, line 3)."

As to claim 4, the following is taught: "A method as claimed in claim 1, in which the media content is a video image or a sequence of video images and the media transmission signal is a television signal, wherein the converted fingerprint is accommodated in lines of the vertical blanking interval (Abstract discloses the recording and detecting of fingerprints in the vertical blanking interval of the TV signal; also see column 3, lines 41-52; and column 3, line 63 to column 4, line 2)."

As to claim 5, the following is taught: "A method as claimed in claim 4, wherein the converted fingerprint is a teletext data signal (The Abstract and the following reference locations disclose the insertion of the fingerprint into the vertical blanking area of the TV signal, which is the non-viewable part of a TV signal that is sent between each video frame; see reference locations: column 3, line 63 to column 4, line2; and column 8, lines 1-22; additionally, it is common knowledge to those skilled in this art, as well as admitted to in the patent application, that the vertical blanking area of the TV signal which is the non-viewable part of the signal is commonly used for closed-caption, or teletext content)."

As to claim 6, the following is taught: "A method as claimed in claim 2, in which the media content is a video image or a sequence of video images and the media transmission signal is a television signal, wherein the fingerprint is

converted into a video signal and accommodated in overscan lines (41) of the television signal that constitute a border of an area being displayed on the screen of a television receiver (The Abstract and the following reference locations disclose deriving the fingerprint to be inserted and accommodated in overscan line area, i.e. into the vertical blanking area of the TV signal, which is the non-viewable part of a TV signal that is sent between each video frame; see reference locations: column 3, line 63 to column 4, line2; and column 8, lines 1-22)."

As to claim 7, the following is taught: " A method of retrieving a fingerprint identifying media content from a media transmission signal used for transmission of said media content, characterized in that the method comprises the step of converting a predetermined part of the media transmission signal not being used for transmission of said media content from a format being used for transmission of said media content into a format representing said first fingerprint (Abstract; also see column 5, lines 21-33)."

As to claim 8, the following is taught: "A method as claimed in claim 7, further comprising the steps of:

"dividing said media content into a first part and a second part, (The Abstract and the following reference locations disclose the two parts of the media content – the image display area, and the vertical blanking area of the TV signal,

which is the non-viewable part of a TV signal that is sent between each video frame; see reference locations: column 3, line 63 to column 4, line2; and column 8, lines 1-22),"

"retrieving said fingerprint from the first part of said media content (Abstract; also see column 5, lines 21-33)."

As to claim 9, the following is taught: "A method as claimed in claim 7, further comprising the step of decrypting the first fingerprint (column 13, line 63 to column 14, line 5)."

As to claim 10, the following is taught: "A method as claimed in claim 7, in which the media content is a video image or a sequence of video images and the media transmission signal is a television signal, wherein said step of converting comprises decoding a teletext signal accommodated in lines of the television signal that are not used for transmission of said video image or video images into said first fingerprint (The Abstract and the following reference locations disclose the insertion of the fingerprint into the vertical blanking area of the TV signal, which is the non-viewable part of a TV signal that is sent between each video frame; see reference locations: column 3, line 63 to column 4, line2; and column 8, lines 1-22; additionally, it is common knowledge to those skilled in this art, as well as admitted to in the patent application, that the vertical blanking area of the

TV signal which is the non-viewable part of the signal is commonly used for closed-caption, or teletext content)."

As to claim 11, the following is taught: "A method as claimed in claim 8, in which the media content is a video image or a sequence of video images and the media transmission signal is a television signal, wherein said step of converting comprises converting overscan lines of the television signal that constitute a border of an area being displayed on the screen of a television receiver into said first fingerprint (The Abstract and the following reference locations disclose deriving the fingerprint to be inserted and placed in the overscan line area, i.e., the vertical blanking area of the TV signal, which is the non-viewable part of a TV signal that is sent between each video frame, and thereby replacing the area with the converted fingerprint; see reference locations: column 3, line 63 to column 4, line2; and column 8, lines 1-22)."

As to claim 12, the following is taught: "A method of verifying the authenticity of media content, comprising the steps of:"

"receiving a media transmission signal representing said media content and a first fingerprint identifying said media content (Abstract; also see column 5, lines 21-33)."

"deriving a second fingerprint from the received media content (see column 11, lines 22-50),"

"determining that the media content is authentic if the first and second fingerprints resemble each other in a predetermined manner (see column 11, lines 51-65),"

"characterized in that the step of receiving the first fingerprint comprises converting predetermined part of the media transmission signal not being used for transmission of said media content from a format being used for transmission of said media content into a format representing said first fingerprint (see column 11, lines 22-65; also, the Abstract discloses the system obtaining identifying information which allows for authenticity checking or comparison techniques comparing fingerprint with original)."

As to claim 13, the following is taught: "An arrangement (2) for embedding a fingerprint (FP) identifying media content into a media transmission signal used for transmission of said media content, the arrangement comprising (column 11, lines 22-39):"

"conversion means (23) for converting said fingerprint into a format that the media transmission signal provides for transmission of said media content (column 11, lines 22-39; and column 13, line 63 to column 14, line 21), and"

"means (24) for accommodating the converted fingerprint in a predetermined part of the media transmission signal not being used for transmission of said media content (column 11, lines 22-39; and column 18 line 54, to column 19, line 8)."

As to claim 14, the following is taught: "An arrangement for retrieving a fingerprint (FP) identifying media content from a media transmission signal used for transmission of said media content, characterized in that the arrangement comprises means (522) for converting a predetermined part of the media transmission signal not being used for transmission of said media content from a format being used for transmission of said media content into a format representing said first fingerprint (column 11, lines 40-65; column 13, line 63 to column 14, line 21; and column 19, line 36 to column 20, line 10)."

As to claim 16, the following is taught: "A media transmission signal comprising media content in a predetermined transmission format, characterized in that a part of said media content in the predetermined transmission format represents a fingerprint derived from and identifying the remaining part of said media content (Abstract, and column 3, line 41 to column 4, line 25)."

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being obvious over Mabey in view of Renaud et al, U.S. Patent Number 5,958,051; Date of Patent: Sep. 28, 1999; Filing Date: Jan. 9, 1997; hereinafter Renaud.

As to claim 15, the following is taught: "A computer program to be run on a computer (4), and causing said computer to carry out a method of verifying the authenticity of media content as claimed in claim 12 (Mabey discloses: column 5, lines 17-55; and column 11, lines 22-65; additionally, the Abstract discloses the system obtaining identifying information which allows for authenticity checking or comparison techniques comparing fingerprint with original)."

Mabey, however does not appear to explicitly disclose "…a method of verifying the authenticity…".

However, Renaud discloses the "…verifying the authenticity…" in the Abstract, as well as in column 3, lines 19-22, and column 4, lines 19-34.

Mabey (column 40, lines 33-57) and Renaud (Abstract; also see column 11, lines 6-17, and lines 40-60) are analogous art because they are from the same field of endeavor of data communication of computer systems.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Mabey and Renaud before him or her, to modify the omission of an explicit method for verifying the authenticity of an identifying code, and to specifically include this method in the discloser because of its powerful and important security features.

The motivation for doing so would have been to provide a more secure system and thereby provide greater system protection.

Therefore, it would have been obvious to combine Renaud with Mabey to obtain the invention as specified in the instant claim.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nossem, U.S. Patent No. 4,319,273; Campbell et al, U.S. Patent No. 4,536,791; Seth-Smith et al, U.S. Patent No. 4,890,319; Richer et al, U.S. Patent No. 4,956,709; Harigai et al U.S. Patent No. 5,311,311; Kanota et al, U.S. Patent No. 5,991,500; and Kimura et al, U.S. Patent No. 6,519,351.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN SANDERS whose telephone number is (571)270-5308. The examiner can normally be reached on M - F; 7:30a.m. - 5:00p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Coby can be reached on 571-272-4017. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen Sanders/
Examiner, Art Unit 4133

/Frantz Coby/
Supervisory Patent Examiner
Art Unit 4133